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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,002	01/20/2004	Wen-Song Tseng	TS2002-1031(N1085-90163)	1634

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IP DEPARTMENT
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EXAMINER

TOLEDO, FERNANDO L

ART UNIT	PAPER NUMBER
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2823

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No. 10/761,002	Applicant(s) TSENG ET AL.	
	Examiner Fernando L. Toledo	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 March 2007 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 9 and 19 – 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshioka et al (US Patent Application Publication US 2002/0027080 A1).

4. In re claims 1 and 19, Yoshioka, in the US Patent Application Publication US 2002/0027080 A1; figures 1 – 30 and related text, discloses providing a wet processing tank within a protection bath; wherein the wafer is to be placed within the wet processing tank (Figure 1); providing a sensor within said wet processing tank wherein said sensor continuously counts bubbles formed within the wet processing tank in a time interval (Figure 1); and querying said sensor wherein if a bubble count within said time interval exceeds a trigger point, then an alarm

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is given and said wafer is not placed into said wet processing tank (§ 0079); and whereby floating of the wafer, and thereby wafer breakage in the wet processing tank are prevented (§ 0074).

5. In re claims 2 and 20, Yoshioka discloses further comprising turning on the sensor when chemical circulation occurs within the wet processing tank (§ 0079).

6. In re claims 3 and 21, Yoshioka discloses further including checking if the sensor emits an “OFF” signal wherein if said “OFF” signal is emitted for more than a threshold time period, then the alarm is given and the wafer is not placed into the wet processing tank (§ 0079).

7. In re claims 4 and 22, Yoshioka discloses wherein the wet processing includes wet stripping, wet etching, or rinsing (Abstract).

8. In re claims 5 and 23, Yoshioka discloses wherein the bubbles are caused by boiling of liquid within said wet processing tank (§ 0078).

9. In re claims 6 and 24, Yoshioka discloses wherein the bubbles are caused by air being sucked into a circulation loop and thus into said wet processing tank (§ 0079).

10. In re claims 7 and 19, Yoshioka discloses further including providing an outer tank surrounding said wet processing tank wherein said chemical circulation includes a chemical liquid circulating out of the outer tank, through a pump, and into the processing tank (Figure 1).

11. In re claims 8, 19 and 25, Yoshioka discloses wherein the chemical liquid further travels through a heater, a filter and several air valves (Figure 1).

12. In re claims 9 and 19, Yoshioka discloses wherein the chemical liquid travels through said sensor prior to traveling through said pump (Figure 1).

Response to Arguments

13. Applicant's arguments filed 6 March 2007 have been fully considered but they are not persuasive for the following reasons.

Applicant contests that Yoshioka does not teach the limitation "whereby floating of said wafer, and thereby wafer breakage in said wet processing tank are prevented."

Examiner respectfully submits that Yoshioka implicitly discloses such limitation in paragraph 0074. Yoshioka discloses that the substrate W is held by the substrate holder 314 with a watertight seal being made over the backside of the substrate W. Yoshioka inherently protects the wafer from floating and thereby breakage since it is held tightly to the holder 314 shown in figure 1. Hence, the 35 USC §102(b) rejection stands and it is considered proper.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fernando L. Toledo whose telephone number is 571-272-1867. The examiner can normally be reached on Mon-Fri 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

flt
18 March 2007



FERNANDO L. TOLEDO
PRIMARY PATENT EXAMINER